



$$x + y = 0$$

# STUDENT WORKSHEET

## MATHEMATICS

# ALGEBRA

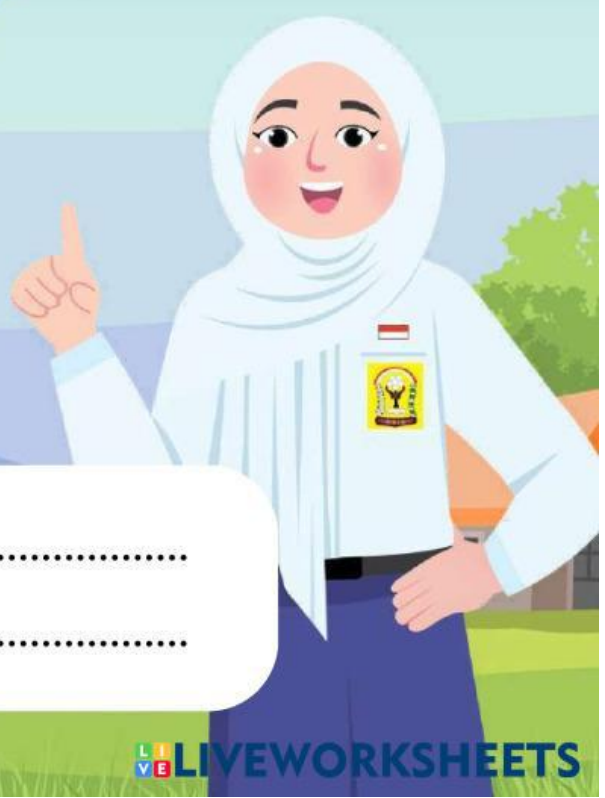
7TH GRADE JUNIOR HIGH SCHOOL (PHASE D)

$$Ax + B$$

$$a = b + c$$

$$2x + 4y = 0$$

$$a^2 = b^2 + c^2$$



Name : .....

Class : .....



## Learning objectives

- Modeling everyday situations in algebraic form.
- Identify variables, coefficients, constants, and terms.
- Determine similar and dissimilar terms.
- Simplifying simple algebraic forms.








## Work Instructions

- Include your identity on the cover of this LKPD
- Carry out each work step in the LKPD carefully
- Each activity in the LKPD is equipped with steps for completing it.
- Work with full responsibility and discipline
- If there is anything you don't understand, you can ask the teacher.
- If you have finished working, you can submit your answers to the teacher.



## Activity 1 Algebraic Forms

- Around us, the number of objects is often expressed using units of objects, for example 1 sack of rice, 1 basket of apples, and so on. In the table below, one apple is represented by the number 1, a basket of apples is represented by  $x$ , and a basket of oranges is represented by  $y$ .

NO	Picture	Algebraic Form
1		...
2		...
3		...
4		...
5		...

## Activity 2 Elements of Algebra



In algebraic form we know several elements including variables, constants and coefficients.

Look at the picture and questions below!

1.

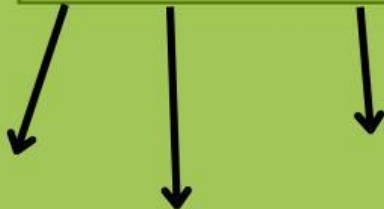
Rina has:

- 3 baskets of oranges
- 5 oranges outside the basket



Since the number of oranges in each basket is unknown, we symbolize it with the letter  $y$ . If the number of oranges is written in algebraic form, then:

$$\dots \quad \dots \quad + \quad \dots$$



2.

Budi has:

- 4 bags of candy
- 6 candies out of the bag



Since the number of candies in each bag is unknown, we symbolize it with the letter  $x$ . If the number of candies is written in algebraic form, then:

$$\dots \quad \dots \quad + \quad \dots$$



### Activity 3 Algebraic Terms

- Determine the number of terms in the following algebraic form:

1.  $x^2 + 2x - 5$

2.  $x^2 + 2x^2 - 2x + 1$

3.  $x^2y + 6xy + x - y$

- Determine the like terms in the following algebraic form

1.  $5x + x^2y + 3x - y + 2$

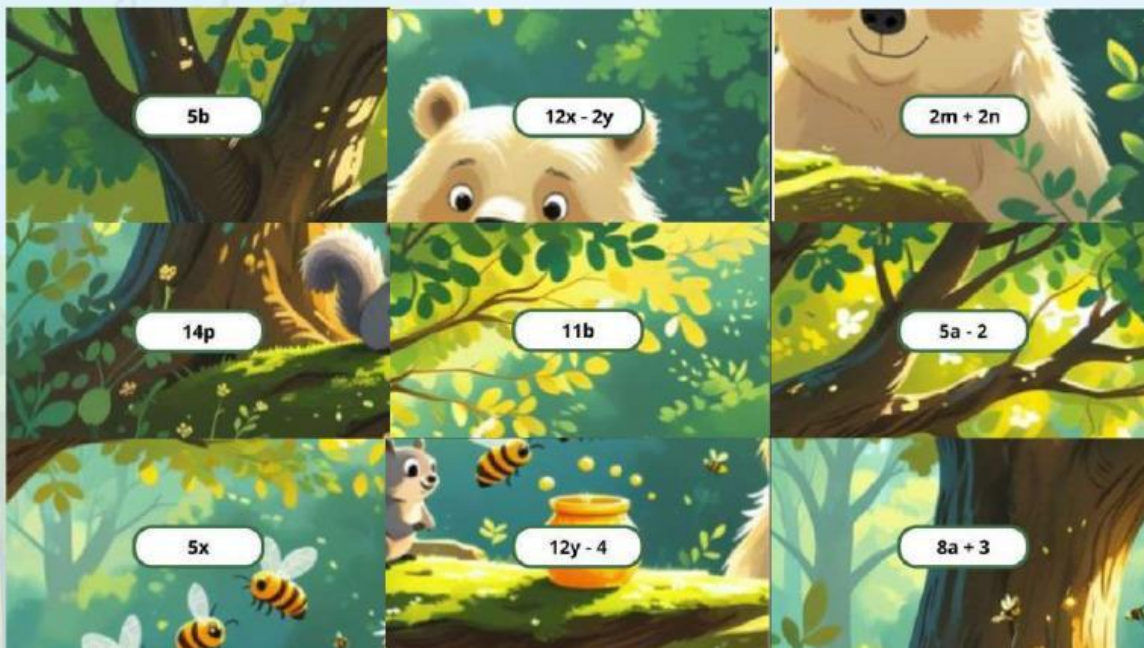
2.  $x - 2x^2y + 3x - 4y$

3.  $x^2y + 3xy + 10 - 7x^2y$

## Activity 4 Simplifying Algebraic Expressions

- Let's put together the puzzle by matching the answers to the correct questions!

$9b - 4b = \dots$	$12a - 10a + 3a - 2 = \dots$	$3b + 2b + 6b = \dots$
$10a - 2a + 3 = \dots$	$3x + 2x = \dots$	$5x + 7x - 2y = \dots$
$8p - 5p + 11p = \dots$	$7y + 5y - 4 = \dots$	$4m - 2m + 3n - n = \dots$



## Activity 5 Conclusion

After carrying out today's learning activities, write down the conclusions you have drawn!



$$a^2 = b^2 + c^2$$

$$x + y = 0$$